

# PHILADELPHIA MEDICAL TIMES.

SATURDAY, JUNE 19, 1875.

## ORIGINAL COMMUNICATIONS.

### TUBERCULAR ULCERATION OF THE LARYNX AND TRACHEA.

*Read before the Pathological Society of Philadelphia, April 8, 1875.*

BY R. M. BERTOLET, M.D.

**C**ONSIDERABLE diversity of opinion has for a long time prevailed among pathologists, and even exists at the present day, as to what actually constitutes the morbid process which underlies and induces the extensive ulcerations of the laryngeal and tracheal mucous membranes so frequently marking the termination of pulmonary phthisis. Modern research has dissipated many so-called tuberculous masses. Thus, the "crude tubercle" of Laennec has been resolved into simple caseous pneumonia; while "phthisis renalis" has been proven to be, in the majority of cases, minute capillary embolism, or inflammatory foci; the miliary tubercle being something altogether accidental.\* This same tendency to limit strictly the term "tuberculous" to cases in which the actual presence of the miliary granulum is clearly demonstrable has likewise been applied to the affections of the larynx, with the result that now many deny *in toto* the eruption of tubercles in this site of the body.

The unusual activity which has been awakened in the study of diseases of the throat since the invention of the laryngoscope places it beyond a shadow of doubt that much of what was formerly designated as laryngeal phthisis has no connection whatever with tuberculosis. Yet I think the mark has been over-reached by those who disclaim entirely the tuberculous character of all laryngeal ulcerations. The proneness which tubercle, when seated in the laryngeal mucous membrane, exhibits towards necrobiosis explains, in a measure, the fact why, in this site, it so often escapes detection; tubercle being no longer recognizable as such when once it has undergone caseation and softening. There is nothing characteristic in the broken-down débris of tubercle.

In the literature on this subject we find two views entertained,—one group of authors maintaining that tubercle does not occur in laryngeal ulcerations, while the others ascribe an important rôle to tubercle in these affections. Among the former may be cited Rühle,† who, after years of diligent search, found but two specimens of miliary tubercle among hundreds of laryngeal and tracheal ulceration of phthisical patients. Most frequently simple catarrhal or follicular ulcerations were observed; the latter especially at those points of the larynx where the racemose glands are aggregated,—namely, upon the posterior surface of the epiglottis, upon the upper portion of the posterior laryngeal wall,

and in the Morgagnian ventricles. Türck,‡ also, and with him many others, adopt the view of their mode of origin which was first studied and promulgated by Rheiner.§ The catarrhal inflammation which forms the basis for the ultimate loss of substance is characterized as a destruction of the epithelium, and a thick cellular infiltration of the mucous and submucous tissues. This infiltration Rheiner regards "as a uniform proliferation of pre-existing elements." The margins of the ulcerations are usually pale, and thickened by a serous or cedematous infiltration. Papillæ, which, according to Rheiner, do not normally occur in the larynx, appear in the vicinity and upon the margins of old ulcers.

Rindfleisch|| very graphically describes the various pathological appearances induced by the chronic infiltration of the laryngo-tracheal glands, and asks, "If the weightiest and gravest disturbances of the larynx and trachea are alone induced by catarrhal inflammation and ulceration, what is left for tuberculosis to perform? Do tubercles at all occur in 'phthisis laryngea,' and what rôle do they play?" This author, while admitting having found cellular foci in still intact portions of the connective tissue recalling the appearances of miliary tubercle, ascribes to them no higher value than that of a permanent irritant, and thus accounts for the persistency and tendency to recur which is so characteristic of these catarrhal inflammations.

Of those who, on the contrary, view the lesions in question as decidedly tuberculous, we need but mention Virchow and Rokitansky. According to the latter,¶ tubercles occur in the laryngeal mucous membrane, as in most other mucous membranes, in the form of small granulations or massive infiltrations. From their destruction ulcerations appear, which are, therefore, of positive tubercular nature. These often extend into the submucous tissue, have hard, raised, undermined edges, often having "papillary vegetations" covered with excessive epithelial formations. In the vicinity occur injection, redness, swelling, and oedema. This is the mode of the development of the primary tuberculous ulceration, which by confluence with others, and partly by the breaking up of fresh tubercles upon the margins, brings about the secondary ulcer.

Virchow\*\* as positively asserts the presence of tubercles in the larynx, and further points out that when seated very superficially in the membrane they are apt to soften and form small, shallow, simple tubercular ulcerations without even having ever undergone caseation or attained a size appreciable to the naked eye.

After excluding the catarrhal ulcerations, which have been so often mistaken for tuberculous, there still occur a limited number of ulcerations in which it is possible to demonstrate the existence of miliary tubercles in those parts of the mucous membrane

\* Ebstein, *Nierenkrankheiten*; Ziemssen, *Handb. d. spec. Path. u. Therapie*, Bd. ix. S. 35.

† *Kehlkopfkrankheiten*, Berlin, 1861, p. 261.

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‡ Türck, *Klinik d. Krankh. d. Kehlkopfes*, Wien, 1866, S. 263, 355.

§ Cannstatt's *Jahrb.*, Jahrg. 1853, Bd. ii. S. 55.

¶ Lehrb. d. Pathol. Gewebelehre, Zweite Aufl., S. 329.

|| Rokitansky, *Lehrbuch d. path. Anat.*, Bd. iii. S. 27.

\*\* Virchow, *Geschwülste*, Bd. ii. S. 644.

where the mucous glands and their ducts remain unaffected. In one of the three specimens of the human larynx and trachea which are herewith presented to the Society, this is very notably the case ; the extensive loss of substance is remarkably limited to the mucous membrane directly covering the tracheal rings and the vocal cords, and although a number of the tracheal cartilages are laid bare by the ulcerative process, yet we find the intercartilaginous spaces, the posterior surface of the epiglottis, Morgagnian ventricles, and other points which are most abundantly supplied with mucous glands, unaffected.

In the two other specimens, the ulcerations are more extensive, but limited principally to the glandular localities ; yet at certain distances from the cedematous and papillary margins I have also found in them unmistakable miliary tubercles beneath an attenuated epithelial covering. All of these specimens were obtained from exquisitely pronounced cases of tuberculosis. I will not delay to give their clinical histories, save a brief synopsis of the first case, which is interesting not only from the fact that it is eminently a tubercular and not a follicular process, but illustrates the probable manner of infection (auto-inoculation), and the extreme rapidity with which these ulcerations may be developed.

J. W., aged 36, a laborer, native of Bavaria, was admitted into the German Hospital March 19, 1875, and died upon the 25th of the same month. He had been an inmate of the institution upon two former occasions during the last year and a half, then presenting all the physical and subjective symptoms of chronic pneumonic processes in the apices. The troublesome cough and abundant expectoration were successfully combated upon both occasions, and the patient, rapidly regaining his strength, was enabled to resume his ordinary labors, which subjected him to much out-door exposure. No laryngeal complications presented themselves in his earlier attacks, but upon his last admission there was marked aphonia ; hoarseness only developed a few days before. The sputa were muco-purulent, but not very abundant.

There were at once detected all the physical signs of small vomicæ in the apices, and increased vocal fremitus, and impairment of the resonance, extending posteriorly to the base of the lungs. Subcrepitant râles, both anteriorly and posteriorly, were heard upon auscultation ; cavernous respiration in the infra-clavicular region. The heart-sounds were normal. The urine was of a high specific gravity, loaded with urates, but free from albumen.

The patient had been actively employed until within a week previous to his entrance into the house, and presented a robust appearance, which was far from indicating the serious malady with which he was affected. However, the previous history, together with the rapid pulse, the hurried respirations, and the extremely high temperature (never under 100° F. during the entire six days) left little doubt that acute tuberculosis had supervened upon the breaking down of old caseous foci seated in the lungs.

The patient very rapidly lost strength and emaciated ; the bodily temperature continued excessive in spite of large doses of quinine and other antipyretic remedies. There were, as is ordinarily observed in these cases of tuberculosis, marked morning exacerbations, the temperature exceeding by three or four degrees that noticed in the evening. The febrile disturbances were attended by digestive derangements, and, upon the last few days,

profuse diarrhoea set in ; stools slightly tinged with blood.

A laryngoscopic examination showed a congested condition of the entire laryngeal mucous membrane, with a few punctiform yellowish prominences upon the posterior surface and margins of the epiglottis. Only the most superficial ulcerations could be detected upon the upper and inner surfaces of the vocal cords. No satisfactory view of the trachea was obtained, and, not desiring to fatigue the patient, all further attempts at examination were discontinued.

*Autopsy.*—The body was noted as considerably emaciated ; firm pleuritic adhesions existed over the upper lobes ; about an ounce of serous effusion in both pleural cavities. A caseous infiltration partially solidified both the upper lobes ; disseminated throughout these, and less uniformly in the lower lobes, were numerous gray miliary tubercles. A cavity the size of an English walnut, with ragged walls, had formed in each apex. There was peribronchial induration of the adjacent bronchioles, which at many points were dilated and plugged with yellow, cheesy masses, while the mucous membrane was inflamed and at many places ulcerated. There was hypostatic oedema in the posterior and pendent portions of the lower lobes ; bronchial glands enlarged. There were numerous equatorial ulcerations of the small intestines, the mesenteric glands being moderately enlarged. There was considerable intumescence of the liver, spleen, and kidneys, the former being fatty, and the latter showing cloudy swelling of the cortical epithelium. No miliary tubercles were detected in these organs.

The larynx and trachea obtained from this case, as previously stated, exhibit very extensive destruction of the mucous membrane covering many of the tracheal rings, and superficial erosions upon the vocal cords. Portions of this and of the other specimens were frozen, and thin sections made of them in the fresh condition, while other parts were hardened in a solution of chromic acid. The result of the microscopic examinations may be briefly summarized as follows : a diffuse cellular infiltration of the tissues around the mucous glands and their ducts, extending from the margin of the ulcerations far into the adjacent mucous membrane, giving it a finely granular appearance. Under higher powers this resolves itself into a lymphadenoid tissue with cells of a roundish shape, usually having a large nucleus. A finely reticulated net-work, generally fibrillated, or else minutely granular, separates the cells. Often the glands are hypertrophied and their ducts occluded with secretion ; yet this peculiar net-like tissue is also found around follicles which present a normal appearance. It is also found at points, but always sub-epithelial, where no ulcerations have yet occurred, the mucous membrane being still intact. Very often, however, the epithelial covering is elevated and attenuated, beneath being found a circumscribed mass with a large, compact, granular centre. The readiness with which the periphery of this nodule takes up carmine, its multinuclear giant cells, its reticulum, and its entire appearance, leave room for no other interpretation than that of tubercle. Confirmatory observations of these appearances, with most excellent microscopic illustrations, have been made by Wahlberg,\* who, in his exhaustive studies upon this subject, also minutely

\* *Medizinische Jahrbücher*, 1872, Taf. VII.

describes the various alterations occurring in the squamous and cylindrical epithelium. Wahlberg ascribes the localization of this peculiar adenoid infiltration in the parts around the mucous glands and their ducts to the fact that they are surrounded by an extremely well-developed capillary net-work.

I have been very much interested in noting the liability, in this and in a great many other specimens where the tubercular and not the catarrhal processes predominated, of the mucous membrane covering the sharp projecting edges of the tracheal rings and vocal cords to become involved first. If we consider how nearly uniformly successful the attempts at inoculation with tuberculous material have proven, the sputa alone of tuberculous patients sufficing, to say the least, it cannot but appear plausible that the same matter should possess equally infectious properties whilst still remaining in the human body, especially so when the circumstances attending its engrafting are so unexceptionably favorable. The tenacious sputa clinging to the tracheal walls and exerting their greatest pressure and friction upon the projecting ridges not only exercise a deleterious influence upon the epithelium, but also cause a hyperæmic condition of the underlying capillaries; the moment arrives when the sputa are loaded with tuberculous elements, some of them still, perhaps, possessed of amoeboid movements, and the ground for this tubercular seed is in excellent tillage, and freely supplied with running streams of lymph and blood.

Another reason suggesting and favoring this view of a local infection by the direct contact is the infallible precedence of a tubercular process in the lungs. This statement is only apparently at variance with the ground held by many of the best laryngoscopists, that tuberculous laryngitis may be developed before there are any lung-complications, since they are disposed to designate by this same term ulcerative laryngitis even when dependent upon mere chronic follicular inflammations; and I doubt very much whether a rigid discrimination beyond the mere site of the ulcerations is possible, for miliary tubercles are not recognizable as such by the laryngeal mirror.

In all the autopsies where I have succeeded in detecting true tubercular ulcerations of the throat and windpipe, I have invariably found tubercles existing in the lungs. Should this view of their growth in the trachea and larynx by local inoculation be corroborated by further observations, then the statement made by Louis, that the sharp secretions of the sputa excoriate the mucous membrane, is after all not quite so absurd. Curiously enough, however, Louis denied the tuberculous character of all laryngeal ulcerations.

#### A CASE OF HÆMOPTYSIS PRECEDING AND ACCOMPANYING LABOR.

BY HENRY B. REED, M.D.

MRS. M. K., æt. 38; born in Ireland; washerwoman by occupation; of intemperate habits; came under my care May 5, 1875. I found her sitting

in a chair, with her feet in mustard-water, and having a basin in her lap containing about a teacupful of uncoagulated, bright red, and frothy blood. She wore a very anxious expression, and she told her husband, who was near her, that she was dying. Her pulse was 120, and full; there was great uneasiness in the chest, and great difficulty in breathing. Skin was covered with a cold sweat.

The history of the case, as derived from herself, is as follows. Early in the fall of 1874 she took a severe cold, while washing, which laid her up for about a week, and since that time she has had a cough and shortness of breath on slight exertion, loss of flesh, and, lately, swelling of the feet, cough more persistent, especially at night, and almost always accompanied with the expectoration of frothy, greenish, and yellow sputa, sometimes tinged with blood, and profuse and exhausting night-sweats. She was pregnant, and had expected to have been delivered on the day previous to the one on which I first saw her. The hemorrhage from the lungs came on while "hanging up clothes." Both her father and mother died with lung-troubles. I did not deem it necessary or advisable to make a prolonged physical examination when I first saw her, but simply placed my ear to the chest, and detected low gurgling sounds at the apex air-tubes of the right lung. Ice was applied to the chest, and ten grains of gallic acid given every half-hour for two hours, to insure an arrest of the hemorrhage. Spt. ether. comp. was given in one-drachm doses every three hours, to relieve the dyspnœa.

May 6.—Patient quite comfortable. No signs of approaching confinement. During an occasional cough, the patient would spit up dark clots with sputa.

May 8.—Up to this time the patient has remained in a comfortable condition, but is only able to rest while sitting up. 9.30 P.M. I found her in labor-pains, with a second hemorrhage from the lungs. I determined to accomplish as hasty a delivery as possible, on account of her great efforts in breathing. The bag of waters was ruptured, the forceps applied, and she was delivered of a fine, large, female child. 3i of vin. ergotæ administered. The hemorrhage ceased in a few minutes, the placenta came away, and the oppression in breathing was greatly relieved.

May 9.—Physical examination revealed an extensive cavity at the apex of each lung. Feet of the patient much swollen, and pit on pressure. Some dyspnœa.

Since May 9, the patient has been sinking gradually, notwithstanding the administration of tonics and nourishing diet. She has had no more trouble from hemorrhage, and has been feeling easy.

Wednesday, May 26.—Patient died.

#### NOTES OF HOSPITAL PRACTICE.

#### HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. NEILL, MAY 15.

Reported by DR. J. WILLIAM WHITE.

GONORRHEA.

**CASE I.**—We have here to-day in this lad a typical case of gonorrhœa, and, although you have already seen many similar cases, I will take this opportunity of impressing upon your minds a few of the more important points connected with this disease and its treatment. In the first place, remember that we are speaking of a true specific affection, not of an ordinary urethral catarrh,—of a disease which in all cases results from the applica-

tion of a peculiar poison, which follows impure and indiscriminate connection, and which is highly contagious. It is a true venereal disease, that term at the present day being used to include the local contagious chancre or chancroid, syphilis, and gonorrhœa, each of which diseases propagates itself and no other. We must not, therefore, consider that it is to be compared with the various non-specific inflammatory diseases that may attack the genito-urinary organs, or with the mucous or muco-purulent discharges which take place from the eyes, the nose, or the bronchi. These are usually not inoculable and not contagious. Neither will these or similar diseases produce gonorrhœa. It is not a case of evolution from bronchitis or cystitis, but arises from the presence of a specific germ, which has a definite life and individuality, and did not grow out of anything else.

With the usual symptoms and causes of this disease I presume you are all familiar. After the exposure to contagion there is a stage of incubation, lasting from three to five days, followed by a sense of heat and itching around the external meatus, the lips of which become red and swollen. On squeezing the urethra, a few drops of mucous pus can generally be forced out. The discharge becomes more abundant; there is intense pain during urination, which is often more frequent than natural; chordee occurs; there is often some constitutional disturbance, fever, headache, etc., and then these symptoms subside, the inflammation becomes subacute, and, under proper treatment, disappears in the course of a few weeks.

In regard to the treatment of this disease, a very false notion prevailed among our professional predecessors, and has been inherited from them.

The common treatment of gonorrhœa used to be, and to a certain extent still is, the administration of stimulating resinous diuretics, principally cubeb and copaiba. The abuse of these medicines is worse than the disease itself, and they have undoubtedly been the cause of much of the chronic urethritis and cystitis which now exist. They have also been productive of much dyspeptic trouble, especially since the introduction of capsules, admitting of such large doses. You may therefore lay this down as a rule in the treatment of gonorrhœa: never begin with cubeb or copaiba. In such a case as this, and indeed in nearly all cases, at this early and inflammatory stage I should direct the following prescription:

R. Potassii bitart., 3*iv*;  
Potassii nitrat. (pulv.), 3*iii*;  
Potass. et antimon. tart., gr. i.

This should be ground in a mortar and thoroughly incorporated, and then divided into twelve powders, one of which is to be taken three times daily.

The result will be at once an increased action of the kidneys and the whole genito-urinary tract, which will diminish the vascularity and hyperæmia of the urethral mucous membrane. The discharge will, perhaps, at first be somewhat increased, and it is as well to mention the possibility of this to the patient, but it will then in its turn diminish, and in ten days will almost invariably be much less. In conjunction with this treatment you may order urethral injections, consisting at first merely of cold water, and afterwards of some astringent, such as the sulphate or chloride of zinc or nitrate of silver, but never stronger than half a grain or a grain to the ounce. At the same time, the amount of solid food should be restricted, large quantities of water and alkaline drinks should be taken, and the use of spirituous liquors, violent exercise, and sexual excitement should be strictly avoided. The prejudice which exists against coffee, salt meat, etc., I believe to have no philosophical basis.

#### BUBO FROM INVERTED TOE-NAIL.

*Case II.*—This patient is a plumber by trade, twenty years of age, and is, as you see, of a lymphatic temperament. He has been out of work for some time, and is rather poorly nourished. About six weeks ago he noticed a swelling in his groin, which was at first tender and painful, but which gradually became insensitive, although continuing to increase in size. There is no existing venereal disease, and he denies having been the subject of any,—which is probably true, as there are many cases of bubo not connected with any specific disease. When they do arise from such causes, there are usually one or two glands affected; but here there is a general glandular enlargement in the whole groin, all the glands and the intervening cellular tissue being affected. Such a bubo frequently follows any little point of irritation or any unusual demand upon the system, such as a long walk, especially in persons of a broken-down constitution. On examining this patient closely, we find that he has an inverted toe-nail, which is doubtless the primary cause of his trouble, as it is amply sufficient to account for it; we will cure this, and will probably at the same time cure the bubo.

#### CONTUSION OF RIBS.

*Case III.*—You examine cases of injury to the ribs, where there is a suspected fracture, by placing one hand on the sternal and the other on the dorsal extremity of the ribs, and pressing them together. If there is fracture you will produce pain and crepitus; but you should remember that there is often as much pain associated with bruising of the periosteal or perichondrial coverings of the ribs or of their cartilages as with fracture. The treatment is the same in both cases. Strips of sticking-plaster should be applied, one over the other, and running around the side of the chest from the spine to the sternum, so as to secure complete rest of the affected side.

(Cases of gonorrhœal bubo and hydrocele were shown to the class and were operated upon.)

#### PHILADELPHIA HOSPITAL.

##### SERVICE OF PROF. H. C. WOOD.

Reported by Dr. JOHN M. RADEBAUGH, Resident Physician.

##### SUDDEN DEATH IN ACUTE RHEUMATISM FROM RUP-TURE OF A SMALL ANEURISM INTO THE PERICARDIUM.

**W.** O'B., æt. 40, Ireland, entered the medical ward May 20, 1875, late in the afternoon. He complained of pain in the knees, elbows, and phalangeal joints of the front and middle fingers of the left hand. He had suffered with these pains for two weeks previous, but had never, until that time, had any symptoms of rheumatism.

May 30, 1875, A.M.—On auscultation, a distinct murmur was heard with the first sound of the heart, which was loud and rough, and simultaneously a rough friction-like sound. Pulse was 130. At 7.30 P.M. he was comfortable. About 9.45, patient called nurse for a drink of water. Immediately after he threw up his hands, screamed twice, and was dead.

Post-mortem examination showed lungs healthy, but on the diaphragmatic pleura of the right side large fungus-like projections of false membrane. The pericardium was filled with a black clot, which completely surrounded the heart. There was an aneurism of the aorta, of moderate size, not sacculated, within the pericardium, and a small point of rupture just at the attachment of the pericardium. There was no peri- or endocarditis, and valves were normal. The ventricles were much hypertrophied.

## TRANSLATIONS.

ON THE EFFECT OF DIRECT FARADIZATION OF THE VENTRICLES OF THE DOG'S HEART (A. Vulpian: *Centralblatt für Chirurgie*, No. 15, 1875).—In these experiments Vulpian thrust needles into the heart, either through the walls of the thorax or directly into the substance of the heart, after providing for artificial respiration and opening the thoracic cavity. These needles were then connected with the poles of the electrical apparatus and powerful induced currents passed through them. There occurred immediately, even when the needles were inserted only into the right side of the heart, active muscular tremblings in both ventricles, which occurred at various points, lasted four or five minutes, and then passed into mere twitching of fibres. After a period of three or four minutes more, the ventricles passed into diastolic quiet.

The same results were seen when the induced current was allowed to flow but for one or two seconds, or when, for instance, the electrodes were placed upon the heart and at once removed. No changes in the phenomena were noticed when the animals, previous to the transmission of the current, were brought under the influence of chloral or woorara.

After the cessation of the twitching of the fibres and the appearance of diastolic rest, the muscular tissue of the heart could no longer be excited by direct or reflex irritations.

Since these results of faradization were not changed by section of the pneumogastric nerves, nor by the previous administration of atropine, which is supposed to paralyze the terminations of the vagus in the heart itself, Vulpian concludes that the action of the current is exclusively upon the muscle of the heart.

Similar results were given when but one electrode was thrust into the heart, the other being allowed to rest upon some portion of the skin.

Only when feeble currents are employed are these symptoms transitory, followed by a return of the normal actions of the heart.

The observer, therefore, thinks that this electrical irritation gives rise to a kind of spasm of the muscle of the ventricles, by which they are prevented responding with rhythmical contractions to motor impulses which they receive from the cardiac ganglia. The spasmodic trembling which occurs most probably exhausts with rapidity the irritability of the muscular tissue of the organ. When the spasm ceases, the ventricles are no longer in a condition to be restored to activity by the nervous impulse, and therefore a total and final cessation of cardiac movement occurs. The knowledge that a fatal result to the dog follows these experiments must, at all events, arouse a dread that similar consequences might be met with in man. Since S. Mayer has also reached virtually the same conclusion, until further experience has been had it must be regarded as unjustifiable to endeavor to arouse the heart to action, in cases of sudden and alarming syncope, by electro-puncture, the use of which has been advised by some authorities.

W. A.

COMPRESSION OF THE AORTA IN GRAVE HEMORRHAGES FOLLOWING ACCOUCHEMENT.—In a letter to the *Bull. Gén. de Thérap.*, May 15, Dr. Berenger-Féraud recounts the following case:

He attended, in November, 1863, with Dr. Demarquay, a primipara in whom labor was rendered difficult by the disproportion between the maternal organs and the fetus. Delivery was effected with the aid of the forceps, the child being born alive and in good condition, but a slight laceration of the perineum resulting in the mother. A few minutes later, while Dr. B. was examining

the wounded perineum, he observed a sudden gush of blood from the vagina. The jet was nearly two-thirds of an inch in diameter. In less than six seconds it furnished between four and five pints of blood. As quick as thought the doctor leaped to the side of the patient's bed, tore off the clothes, and applied his hand firmly as a compressor over the umbilical region, forcing the aorta against the vertebral column. Dr. Demarquay, who was at the other side of the room, hastened to the patient, and arrived in time to confirm Dr. B.'s impression as regarded the size of the blood-jet. Having ascertained that the manual pressure controlled the hemorrhage, Drs. B. and D. practised friction upon the abdomen in order to contract the uterus, which was flaccid and relaxed. At the end of about ten minutes the uterus had recovered its tonicity and was contracted; compression was then suspended without recurrence of hemorrhage.

The amount of blood lost even in the brief interval before compression could be made was very large, and the patient showed all the symptoms usual after severe hemorrhage. No other means, says Dr. B., would have availed in this case. Tamponing the vagina would have cost the life of the patient by internal hemorrhage, since the uterus in its uncontracted condition would have contained a clot of at least four quarts before offering sufficient resistance to oppose the escape of blood. Neither external nor internal manipulation, nor the injection of styptics, could have been practised in anything like time to save the patient's life. X.

A CASE OF GASTRO-PULMONIC FISTULA FOLLOWING PERFORATION BY GASTRIC ULCER.—Inlinssberger communicates a case of this kind to the *Berlin. Klin. Wochenschr.*, 1874, No. 51. The diagnosis was made during life, as the very offensive sputa, in part fluid and in part muco-purulent, contained fragments of food, and, in addition, after each expectoration the previously prominent epigastrium became flattened.

The communication between stomach and lungs was attained in the following manner: the pyloric portion of the stomach was adherent to the liver near the suspensory ligament; a large opening existed in the posterior wall of the pylorus, above which was situated a cavity the size of the fist, filled with air and putrid matter. The walls of this cavity were formed in front and to the right by the chest-walls, below by the liver, to the left by the stomach, above and behind by the diaphragm. The latter was adherent to the pleura and lung, and presented an opening similar to the one leading into the stomach. The bronchia, opening into this cavity, conveyed the contents of the stomach into the trachea. Several tumors were found in the stomach, some of which were just breaking down into ulcers. X.

CROTON-CHLORAL IN DISEASES OF CHILDREN AS COMPARED WITH CHLORAL-HYDRATE.—Bouchut (*Centralbl.*; from *Gaz. Méd. des Hôpitaux*) is inclined, from his experience with croton-chloral, to attribute to this drug only trifling results, compared with those obtained from chloral-hydrate. While the latter in doses of forty to sixty grains will produce such perfect anaesthesia that abscesses may be opened and teeth extracted without pain, croton-chloral, even in drachm doses, scarcely causes sound sleep. The single advantage possessed by croton-chloral is its more agreeable taste. Bouchut has compared both remedies in chorea of children, and gives chloral-hydrate decidedly the preference. (According to Liebreich, croton-chloral, the taste of which is intensely bitter, acts chiefly upon the nerves of the head. In a solution in water of two scruples to six ounces, given in dessertspoonful doses every two hours, stubborn hyperesthesia of the trigeminus has been cured in many cases and relieved in others.) X.

PHILADELPHIA  
**MEDICAL TIMES.**  
 A WEEKLY JOURNAL OF  
 MEDICAL AND SURGICAL SCIENCE.

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PUBLISHED EVERY SATURDAY BY  
 J. B. LIPPINCOTT & CO.,  
 715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

SATURDAY, JUNE 19, 1875.

EDITORIAL.

TRANSFUSION.

PROF. MOSLER, of Greifswald, has recently reported in the *Berliner Klinische Wochenschrift* (May 17) the details of a case in which a woman who had for some hours lain pulseless and unconscious from intestinal hemorrhage due to typhoid fever was immediately and permanently revived by transfusion practised into her radial artery. Defibrinated blood from a healthy man was used. This is said to be one out of four cases, and the second successful one, in which transfusion has been used in the hemorrhage of enteric fever. There is one point in the case to which we desire to call especial attention. Prof. Mosler performed the operation in the unusual way employed, avowedly to avoid the risk of distending and thereby paralyzing an excessively weak right ventricle. Several cases abroad have proved instantaneously fatal from cardiac paralysis, evidently simply the result of over-distention of a right heart already scarcely able to fulfil its duties. One of the most terribly dramatic scenes we ever saw owed its chief interest to the same misfortune. The patient, a little French boy, in a foreign clime, pale and waxy from advanced leucocytæmia, surrounded by doctors, sat up in bed with an expression of mortal terror as he watched the preparations for the operation: screaming when the trifling incision was made; outwardly calm, but panting, with nostrils distended, as the syringe was introduced into the canula. Suddenly, as the piston went up, a frightful deadly pallor, a look of

mortal agony, a start and a cry, with upthrown arms, "Mon Dieu ! je vais mourir !" a gasp, a shudder, a heavy fall back upon the pillows, and the life was ended.

In this case, at the autopsy, the cardiac walls were found to be thin, and the muscles degenerated, whilst a large pericardial effusion added to the heart's embarrassment. As there was no reason for suspecting any entrance of air into the veins, the death was evidently wrought out in the manner described.

VENTILATION IN ZOOLOGICAL GARDENS.

IN the London Zoological Gardens five-sixths of the monkeys are said to have died in one month,—largely, as was pointed out by Dr. Neil Arnott, from improper ventilation. In our own garden the keepers attribute the very great success which has attended the acclimating of the giraffes to the extreme care given to the ventilation of the house. In New York, it is stated, the whole herd died during the winter; but here, out of six, four have been saved, and of those which died, one apparently received fatal injury on the voyage. The keepers of animals clearly recognize what keepers of men sometimes forget,—that good ventilation implies not merely sufficient changing of air, but also avoidance of draughts. This is particularly true of the camelopard: the same anatomical character that made Charles Dickens affirm that when he first tasted a sherry cobbler he wished he was a giraffe, renders this animal especially liable to fatal sore throat.

VIVISECTION.—The Home Secretary having stated that it is the intention of the Government to issue a small Royal Commission to make inquiries about vivisection, so called, "in order that they may have full information before they attempt to legislate on the subject," both of the bills to regulate the practice of vivisection in the British Islands, of which we recently spoke, are to be withdrawn. This solution of the matter appears to us a very fair one, and it seems not too much to hope for a fair, candid, and authoritative statement of the facts of the case. The profession may well court investigation.

THE "venerable Dr. Bullard," of New Haven, it is said, has been the high-priest at Hymen's fruition on over one thousand occasions. It is affirmed that the youth and maidens are "to hold a grand reunion and picnic" at his residence. For parents and children to hold a grand reunion would be suggestive; but the toast of the occasion will, we sup-

pose, be "The tie that binds us—Dr. Bullard, our common deliverer." Young men and maidens will share their common memories as they stroll over the lawn or whirl in the giddy mazes of the dance.

DR. S. WEIR MITCHELL has been elected Trustee of the University of Pennsylvania, with, of course, a special regard to the Medical Department. "Lesser than Macbeth, and greater. Thou shalt get kings, though thou be none."

ACCORDING to one of our exchanges, it has been found that invalids can be transported by rail with the greatest comfort in hammocks swinging from the ceiling of the car.

DR. GIBSON MAHON, of this city, was sentenced on the 11th instant to seven years' imprisonment at hard labor and to pay a fine of five hundred dollars for producing an abortion. Dr. Perpente is still in prison, awaiting the result of a motion for a new trial.

M. CALMETTE has demonstrated that the position of the arm affects most extraordinarily the sphygmograph: when the arm is held vertically the exact tracing of aortic insufficiency is obtained.

## CORRESPONDENCE.

### PENNSYLVANIA STATE MEDICAL SOCIETY.

POTTSVILLE, June 12, 1875.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

THE occasion of the Twenty-sixth Annual Meeting of the Pennsylvania State Medical Society will be long remembered, not only by reason of the large number of delegates present, but also on account of the peculiarly satisfactory manner in which the business and pleasures of the occasion were managed. Over one hundred and thirty delegates registered in the course of the session,—a larger number than ever before met together in our State convention.

The meeting was called to order by President Washington L. Atlee, at four o'clock, Wednesday, and after a prayer by Dr. Traill Green, of Easton, the address of welcome was made by Dr. A. H. Halberstadt, Chairman of the Committee of Arrangements. After the usual congratulatory remarks, Dr. H. referred to the often-discussed subject, "the advancement of the medical profession to that high position which their vocation would seem to demand, but which legislation has as yet failed to obtain." The remedy suggested by Dr. H. as the only one by which this can ever be accomplished would require of the student of medicine, before beginning its study, certain literary qualifications without which he dare not lay claim to the influence which every physi-

cian should command; and after this a full three-years' course of study, instead of the two five-months' courses now exacted of him. Such a course was found to be universally popular with the numerous members of the profession met at Pottsville, so that it can no longer be said that the people of Pennsylvania at least are not ready for this reform.

After the transaction of some routine business, written communications were called for, and the Secretary, Dr. Atkinson, read a paper by Dr. O. H. Allis, of Philadelphia, describing his apparatus for the inhalation of ether, already known to the readers of the *Medical Times*. The President, Dr. W. L. Atlee, made some remarks highly approving the apparatus. By its means he had become able to use pure ether in the performance of surgical operations, instead of the mixture of ether and chloroform previously used on account of the excitement ordinarily induced in the administration of ether.

Dr. Levis, of Philadelphia, did not like this or any other special apparatus for the inhalation of ether. In his experience he had found it uncleanly, as well as liable to injure the face of the patient through compression by the wire rim, and in one instance the patient had knocked it from the hand of the etherizer to the other side of the room.

Dr. Keyser, of Philadelphia, concurred in Dr. L.'s remarks; but President Atlee said these objections ought not to be ascribed to the apparatus, but lay in a want of care on the part of the operator.

At the conclusion of the session on Thursday afternoon, Dr. Allis, who was not present when the paper was read, administered ether by his apparatus in the presence of the Convention, and in four and a half minutes had so far completed the etherization as to make it evident that in at most a minute more the man would have been completely etherized.

Dr. John T. Carpenter, of Pottsville, exhibited the results of an exsection of the elbow-joint, in the arm of his brother, a bright lad of about eighteen years, who had accidentally shot himself in the past winter. The result was a truly remarkable one. All the motions of the joint were complete, and there was considerable strength in the arm, a chair being lifted with facility some distance from the floor. Indeed, the doctor informed us that the strength of the arm had diminished in the past month in consequence of the lad's playing base-ball and otherwise using the arm in an excessive degree.

Dr. Keyser, of Philadelphia, read the results of some forty-seven cases of cataract operated upon by him by Graefe's peripheric linear method, in which a better percentage of results was obtained than where iridectomy was not performed, although in some respects this operation is not to be preferred. Dr. K. also explained the method of recording results.

In the evening, at eight, the Convention listened to the address of the President on "Old Physic and Young Physic," which consisted in a comparison of the practice of the present day with that of thirty years ago. In the contrast drawn, at times "Old Physic" appeared to

advantage, and at times "Young Physic." The chief misfortune of "Young Physic" consisted in his neglect of blood-letting, which was shown to have often been of signal advantage in the hands of "Old Physic" for the alleviation of symptoms; while in the free use of cold water and diluent drinks in fever, and the progress made in the knowledge and treatment of diseases of women, "Young Physic" was decidedly in the ascendant. The influence of the dress of women of to-day in producing their diseases was dwelt upon, and congratulations were made upon the successful establishment of a Woman's Medical College.

After the conclusion of the address, the delegates repaired to the house of Dr. Halberstadt, where they were most handsomely "received." The spacious parlors of the doctor were crowded, and the hum of voices busy in the exchange of greeting and sentiment only ceased at a late hour as the company separated. We can scarcely recall an occasion where the enjoyment seemed more thorough.

**SECOND DAY.**—The chief events of the morning session were the reading of the papers on Medicine and Surgery, the former by Dr. William Pepper, and the latter by Dr. Richard Levis, and an excellent report on Hygiene, by Dr. Lee, of Philadelphia. The address of Dr. Pepper, which made a most favorable impression, consisted in a review of diseases added to the nosology in recent years, and of the therapeutic advances in the same period, including the exhibition of instruments recently made available in therapeutics, among which were apparatus for transfusion and for deeply injecting such organs as the lungs, clinical thermometers, etc.

Dr. Levis's paper was upon fractures of the lower end of the radius, in the course of which he stated that the most usual fracture was a transverse one one-fourth to three-fourths of an inch above the lower end of the bone. He also showed that the existence of the fracture usually described as Barton's, the essential feature of which was a chipping off of a fragment of bone communicating with the joint, was exceedingly rare, if ever occurring. He concluded by exhibiting an ingenious apparatus for producing extension, which he considered essential in the treatment of fractures of this end of the radius.

Dr. Lee's address, after a graceful tribute to Hygeia, included an account of the contamination of water and milk, and its influence on the production of typhoid fever by fecal excreta, confirmed by the history of several epidemics. The importance of ventilation and the best means of securing it were considered. The method of Mr. Barker, of Germantown, as adopted in the new University buildings, was described and illustrated by diagram.

Dr. Lee concluded by offering a resolution to the effect that a committee of three be appointed to memorialize the Legislature and to take such other steps as will secure the appointment of a State Board of Health. Drs. Atkinson, of Philadelphia, Traill Green, of Easton, and Orth, of Harrisburg, were appointed.

In the afternoon session Dr. A. P. Carr, of St. Clair,

Schuylkill County, exhibited a miner who had suffered fracture of the skull, loss of an eye, and fracture of the thigh by the premature explosion of a blast. The skull had been trephined with good results.

Dr. C. also exhibited some of the calculi from forty-two cases of lithotomy performed by himself, of which only one was fatal.

Appropriate resolutions of regret and condolence with regard to the late Dr. D. Francis Condie were read by Dr. Nebinger, of Philadelphia, and unanimously adopted.

Dr. R. L. Sibbett, of Cumberland, read the report of the committee appointed at the last meeting of the State Association to secure proper legislation to protect the people against incompetent practitioners of medicine, surgery, and obstetrics, which had resulted successfully. Considerable discussion followed as to the best means of carrying out this law, participated in by Drs. E. A. Wood, of Pittsburg, and Roebuck, of Lancaster, members of the State Senate, and the matter was finally referred to the several County Medical Societies, with the request that they appoint a committee of three to secure the enforcement of the law.

Dr. Curwen, of Harrisburg, then read his report on "Mental Disorders." The general principle which should guide us in the detection of insanity is the comparison of the individual with his former self, rather than with any other individual. The general causes only of insanity were dwelt upon, among which the present vicious system of education received some attention. The address made a decided impression, and excited some discussion, the result of which was a resolution to the effect that Dr. Curwen be requested to furnish that portion of his address relating to the subject of education to State Superintendent Wickersham, for publication in the *School Journal*, and to the Educational Publication Committee of Philadelphia.

Five thousand copies of the Code of Ethics of the Society were ordered printed for general distribution.

Dr. Deshler, delegate from the New Jersey State Medical Society, being introduced by Dr. Halberstadt, made a most pleasing address, which was a pithy review of the proceedings, which he proposed to make to his Society on returning, and many parts of which he thought would be received with pleasure and surprise by his friends in New Jersey.

Dr. Turnbull, of Philadelphia, read a paper on "Disorders of the Eustachian Tube," and recommended suitable treatment.

Dr. Curwen, of Harrisburg, offered the following important resolution, which was adopted:

*"Resolved,* That a committee of eight members of this Society be appointed to prepare a memorial to the Legislature in favor of a hospital for the insane of the Counties of Berks, Bucks, Chester, Delaware, Lehigh, Montgomery, and Northampton, and to urge the passage of a law to establish the same."

Drs. Curwen, of Harrisburg, P. B. Brennig, of Northampton, W. M. Weidman, of Berks, Gilbert McCoy, of Bucks, H. Corson, of Montgomery, I. Price, of Chester,

L. Fussell, of Delaware, and E. G. Martin, of Lehigh, were appointed the committee.

Then followed a long discussion on the causation of typhoid fever, which amounted to a reiteration of the history of the numerous late epidemics, with which the readers of medical journals are all familiar.

The report of the Nominating Committee, which was adopted, provided for the following officers for the next meeting, to be held in Philadelphia on the last Wednesday in May, 1876:

*President*, Dr. Crawford Irwin, of Blair County.

*Vice-Presidents*, Drs. Andrew Nebinger, Philadelphia; A. H. Halberstadt, Schuylkill; R. L. Sibbett, Cumberland; and J. I. Ross, Clarion.

*Corresponding Secretary*, Dr. Thomas M. Drysdale, Philadelphia.

*Permanent Secretary*, Dr. William B. Atkinson, Philadelphia.

*Recording Secretary*, Dr. James Tyson, Philadelphia.

*Treasurer*, Dr. Benjamin Lee, Philadelphia.

*Committee of Publication*, Drs. William B. Atkinson, J. G. Stetler, Benjamin Lee, T. M. Drysdale, James Tyson, Albert Fricke, of Philadelphia, and Charles McIntire, of Northampton.

The event of the evening was a banquet given by the Schuylkill County Medical Society, at Union Hall, where strains of music, the din of voices, and tinkle of glasses combined to produce an occasion long to be remembered by delegates. The usual toasts were read, and were responded to by Drs. E. A. Wood, Atkinson, Nebinger, Allis, Messrs. Harris and Schoeffer, of the Reading Coal and Iron Company, Rev. Mr. Smiley, and others.

I will not detain you by an account of the delightful excursion of Friday, through the mining district, by the courtesy of the Philadelphia and Reading Railroad Company, and participated in by an unusually large number of delegates; suffice it that it was one joyous gala-day from early morning until evening, when the delegates were transferred to the main line of the Philadelphia and Reading Railroad, and distributed to their scattered homes.

X.

#### MASSANETTA SPRINGS.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—I desire to call attention to the value of the water of Massanetta Springs in chronic malarial poisoning. The springs, commonly called Taylor Springs, are situated four miles from Harrisonburg, near the peaks of the Massanetta mountains, in the County of Rockingham, in the Valley of Virginia.

It may surprise some of your readers to learn that there is a mineral spring which is accredited with the virtue of curing any form of chronic intermittent malarial disease, however debilitating, stubborn, or chronic. I am, however, really persuaded of this fact after a most careful investigation for many years, which has also shown me the value of this water in organic disease of the kidneys. This spring has been visited for

a hundred years by persons afflicted with what they deemed incurable agues. The tradition and belief in this county is universal that it has never failed to relieve every case. I have carefully investigated this tradition through such sources as the Hon. Judge Daniel Smith of the Court of Appeals of Virginia, Gen. Samuel Lewis, Hon. John F. Lewis, of the U. S. Senate, who lived all their lives close neighbors to the spring; I have sought out all the previous owners of the property and hotel proprietors of the springs. The oldest neighbors, some of them octogenarians, all assert from personal observation the restoration of health which has been afforded, and their belief is fully supported by medical evidence, very many of the physicians of this county having verified this belief in their own practice by sending their patients to the spring and watching the result. Among them I may mention Drs. Gordon Williams, Webb, Kyle, Minor, Kemper, and others. I have myself over and again seen the following results: most persons have only one chill after drinking the water at the spring; some have none; the lesser number have two; very few have three chills. Nor is it strange when you consider that, according to the late Dr. Rogers, of the University of Virginia, the water contains arsenicum, iodine, chlorine, potassium, sodium, magnesium, calcium, iron, free nitrogen and carbonic acid gases.

I will not occupy space by reporting individual testimony, excepting that of Dr. F. Asbury Effinger, who practised medicine in the Brazos Swamps of Texas,—as rank in malarias as any place in the country. He says, "I had chills for several years, and began to despair of recovery. I repaired to the Massanetta Springs, and soon recovered. I practised medicine for fifteen years afterwards on the Brazos River, and never had another chill."

Col. De Neale states that "he saw thirty-nine Confederate soldiers with ague put in hospital at the Massanetta Springs during the late war at one time, and in a fortnight every one was well."

The water is delicious, very soft, and wholly unirritating; a drink pleasant in all its effects upon the skin, kidneys, liver, stomach, and bowels.

There is a great deal of evidence to establish the value of the remedy in organic kidney-disease, and evidence of much weight, but I will give an account of its history in kidney-diseases at some future day.

Respectfully,

B. CHRISMAN, M.D.

#### PROCEEDINGS OF SOCIETIES.

##### PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 8, 1875.

THE PRESIDENT, DR. WM. PEPPER, in the chair.  
*Epithelioma of the lip.*

DR. C. B. NANCREDE presented two specimens of this affection. The patient from whom the first was removed, E. B., 78 years of age, first noticed about

six months ago a hard lump on the left side of the upper lip. He has been a great smoker, using a clay pipe. About four months ago ulceration commenced, rapidly progressing, and producing an excavated, deep, painful ulcer, with indurated edges, in size about that of a nickel cent.

It had been cauterized frequently by his physician, with nitrate of silver, which had only aggravated the trouble. The patient's general health was excellent, with no arcus senilis, or atheroma of the arteries. His heart-sounds were strong and normal, his hair luxuriant. There was nothing of special interest about the operation, which has proved, thus far, successful, it having been performed the 2d of February, 1875.

The second case presented by Dr. N. was removed from W. B., aged 78 years, who first noticed about six months ago a small wart-like projection on the left side of the lower lip, which grew rapidly, soon ulcerating and occasionally throwing small pieces off in the form of sloughs. No treatment was attempted till he came to him, when he found a mass, about the size of a chestnut, occupying a third of the free surface of the lip, ulcerated and covered with scabs.

When first seen, on the 22d of February, 1875, its removal by the knife was advised, which operation he performed two days later, with success so far.

There is one point of interest in connection with the first case,—viz., the occurrence of true epithelioma on the upper lip, where rodent ulcer is much the more frequent.

Dr. N. desired to hear some expression of members as to the origin of epithelioma, whether it be a hypertrophy of granular tissue, a return of the follicles to the fetal state, or whether the more recent view of Köster of the endothelial origin is to be preferred.

Dr. JAMES TYSON said he could not speak from personal investigation of specimens bearing upon this question, but, from a somewhat careful examination of the observations of others, he felt that while at first thought the formation of cylinders was best explained by their origin in re-solidification of the sebaceous follicles,—a return to their fetal state, as Dr. Nancrede expressed it,—he did not see anything in the way of admitting also Köster's view with regard to the extension of the epithelial protrusions along the interior of the lymphatic vessels, and thus allowing both modes of origin. Some of the members were probably familiar with some comparatively recent observations by Dr. Woodward, of the Army Medical Museum, which tend to support Köster's views.

Dr. R. M. BERTOLET said that the theory of an endothelial origin of epithelioma, as advanced by Köster, was very enticing, and that formerly, having used the nitrate-of-silver staining in a number of fresh growths, he was inclined to adopt this view, but, upon closer investigation, he found it inadequate to account for all of the alterations ordinarily met with in this class of tumors. The glandular apparatus of the skin in cases of epithelioma are so manifestly hypertrophied, there is, evidently, such an active proliferation of the epithelial lining of the sebaceous and sweat glands, that it was impossible to ignore the fact that they performed an important, if not the chief, rôle in the origin of these growths. No doubt the lymphatics served as convenient spaces for the ingrowing cancrum tubuli, and the endothelia then became involved secondarily.

When we examine the analogous cylinder-growths upon the mucous membrane, there is no question but that primarily the mucous glands are solely involved; especially where the new growth assumes, as so often happens, the habitus of an adenoma. Further, we find that the metastatic growths preserve the type of the glandular structure whence the primary growth has sprung; and thus it happens that we come to find, as has been so aptly stated, rectum in the liver.

Owing to the comparative infrequency of metastases into distant organs, the same cannot be as positively asserted of epithelioma of the skin; yet when these secondary growths shall have been more fully studied, he predicted, it would prove that they also presented an imprint of a glandular and not an endothelial tissue.

#### *Abscess of the lung.*

Dr. JOHN GUITÉRAS presented the specimen, from F. W., at 26; colored. Was admitted on the 30th of March into the wards of Blockley Hospital. His friends stated to the nurse that he had been ailing with some chest-trouble for about two years.

On the 29th, the day before admission, he had a very severe chill, and on the evening of the 30th his temperature was 103°. On the 31st, morning temperature 100°; evening temperature 101°. On the 1st, morning temperature 99 $\frac{1}{2}$ °, pulse 105; evening temperature 100°. On the 2d, morning temperature 97°, pulse 84; evening temperature 98 $\frac{1}{2}$ °, pulse 80. This day Dr. G. saw him for the first time, and found him very drowsy, so that the only information he could obtain from him was that he had been ailing for two months, but had only become very ill the last week. His skin was cold and clammy. He had commenced to expectorate large amounts of a brown and extremely fetid fluid.

The respiratory movements were impaired, and the vocal fremitus was increased throughout the right side. Percussion over the upper lobe in front elicited a tympanitic, low-pitched resonance at the apex; farther down and towards the axilla the note became higher pitched, but more metallic. Complete dulness was developed over the whole right lung posteriorly. Auscultation revealed a loud, harsh inspiratory sound, with a prolonged expiration at the apex. Towards the axilla the sounds became fainter, until they were absolutely lost in the axillary line. Here they were substituted by a crackling, which sounded sometimes like a large moist râle, at others like a friction-sound; it had at the time no cavernous or metallic echo. Dr. G. imagined that there was very little if any air moving in and out of this cavity at the time of his examination. Posteriorly there was well-marked bronchial breathing. The left lung gave evidences of vicarious function throughout.

Not finding any evidences of chronic disease of the lungs, he thought that the breaking down of the pulmonary tissue must have been acute,—either abscess or gangrene of the lung.

The diagnosis of the physical condition,—viz., a large cavity near the anterior surface, surrounded above by lung-tissue pervious to air, and below by consolidated tissue—was confirmed by the autopsy. On the 3d, morning temperature 97 $\frac{1}{2}$ °, pulse 90; evening temperature 99 $\frac{1}{2}$ °, pulse 96. On the 4th, morning temperature 99 $\frac{1}{2}$ °, pulse 99, respiration 36; evening temperature 100°. On the 5th, morning temperature 97°, pulse 136, respiration 60; evening temperature 98 $\frac{1}{2}$ °. At the time of death, 8 P.M., the temperature was 96 $\frac{1}{2}$ °.

*Autopsy.*—The subject was a very muscular and well-nourished negro. The upper lobe of the right lung was firmly adherent to the chest-walls. The lower lobe was separated from them by a small quantity of fluid. The diaphragmatic pleurae were adherent. The left lung was simply congested and oedematous, almost to the extent of splenization. The right lung presented in the upper half of the superior lobe, and towards the antero-lateral surface, a large cavity occupying about one-half the volume of the lobe. Its walls presented excavations in different directions, and they were lined in some places with a smooth membrane; at others, ragged pieces were seen floating from the surface. Evidently the extension of the necrobiotic process had been arrested in some places, though the cavity still contained a considerable amount of the brownish fluid that he expectorated.

so freely. The apex of the right lung was still pervious to air; but around the cavity and elsewhere through the lobe the tissue was in a condition of purulent infiltration, readily breaking down under the finger. The lower lobe was in the stage of red hepatization. Nowhere was there any evidence of chronic inflammatory change of the pulmonary tissue, or of deposit of caseous matter.

The specimen answers very closely to the descriptions given by authors, both of gangrene and abscess after the process of destruction is arrested. Dr. G. left it with the Society to decide whether he was right in entirely rejecting any chronic element from the process of destruction in the present case.

The PRESIDENT said the patient was in his wards at the Philadelphia Hospital, but that, on account of unavoidable absence extending over a few days, he did not have an opportunity to examine him. But he thought from the description of the lesions that at least we must admit two separate stages of disease, or perhaps two diseases which had originated at different periods. He thought it scarcely possible that the acute inflammatory condition of the lower lobe, and the lower portion of the upper lobe surrounding the abscess, could be of the same date as that part of the disease which had led to the production of the anfractuous cavity with smooth lining membrane. The President remarked that an abscess (cavity?) in the lung could exist for some time, and that the lung could be attacked by an acute destructive process leading to gangrene and purulent infiltration of the tissue surrounding the cavity; that this was a more reasonable supposition than one which explained the condition by a single process which should have passed so rapidly through acute inflammation to acute gangrene of the lung, while the appearances of the cavity and the adhesions of the upper lobe to the pleura would suggest some morbid action of long standing.

Dr. GUITÉRAS said there was no disease whatever of the opposite apex, and he had never seen a case in which chronic disease had advanced so far on one side without being attended by some disease of the other lung. Further, the patient was what might be called a typically-healthful and remarkably well-developed negro, so far as the external evidences of health were concerned.

The PRESIDENT replied that the points raised are those which give to the case its unusual interest, and perhaps render uncertain the exact determination of the stages of development of the lesion. It is to be regretted that there had been no opportunity for previous examination of the lung. It is to be remembered, however, that it is not uncommon to see cases of chronic cavity in one lung, the subjects of which are in apparently good condition (though liable to intercurrent disease, or sudden outbreak of tuberculous deposition), and that in such cases it is not rare for the disease to be limited to one apex for a long time.

#### *Tubercular laryngitis.*

Dr. BERTOLET presented three specimens of tubercular laryngitis, which will be found reported in another column in the current number of the *Times*.

#### *Dilated heart; pleuritic effusion in a patient who had yellow fever two years previous to death.*

Dr. JOHN H. PACKARD read the following history of the case:

"Mr. R., æt. 63, first came under my care in October, 1874, on account of asthmatic trouble, with rapid, enfeebled, and irregular action of the heart. He had never been in perfectly good health since an attack of yellow fever, according to his statement a very severe one, which he had had, some two or three years ago, when in Mobile. Some years before that he had had

some form of ophthalmia, by which, or, in his opinion, by the severe treatment adopted, the sight of both his eyes had been totally lost.

"The symptoms above mentioned were in a great degree relieved by the use of tonics and digitalis; but in February they recurred, and proved less amenable to treatment. On the 1st of March he was attacked with congestion of the lungs and haemoptysis. The right lung was more seriously affected than the left. This congestion passed off entirely within a week, but the marked debility which had attended it remained, and steadily increased until his death, March 31.

"During the continuance of this congestion, and to some degree after it had subsided, there was dulness on percussion over the right back, and the liver could be plainly felt extending below the ribs, its surface being nodulated. The urine was albuminous, but not highly so. A week or more before his death, an anasarca condition of the legs, which had been gradually increasing, suddenly became very marked; and during the last three days of his life gangrene began in the columna and tip of the nose.

"An autopsy was made, thirty hours after death, by Dr. John M. Keating. Body in ice; rigor mortis scarcely perceptible.

"In opening the thorax, the cartilages of the ribs were found very firmly ossified, so that they had to be sawn through. A large effusion of serum existed in the right pleura, perfectly limpid except in the neighborhood of an old adhesion posteriorly, where there was a long ragged flake of lymph. The lung was somewhat emphysematous above and in front, but below and posteriorly there was a focus of very marked congestion, a portion of the tissue sinking in water. In the left lung the same appearances existed, except that the congestion was less marked and seemed to be merely hypostatic. There was no effusion in the left pleura.

"The heart was very largely dilated, its tissue far advanced in fatty degeneration, its valves all healthy, as were also the large vessels. The auricles and ventricles were full of blood, liquid in the right cavities, softly clotted in the left.

"In the abdomen there was found a good deal of fat in the subperitoneal areolar tissue, extending along the suspensory ligament of the liver, which organ was roughened or finely nodulated on the surface, and seemed to be fatty. A curious arrangement of the gall-bladder was noticed; it was very long, full of fluid bile, and curled up around the anterior edge of the liver, so as to have its fundus directed towards the diaphragm.

"The omentum was strongly adherent to the underlying viscera, and numerous adhesions and slight deposits of lymph existed between the coils of intestine. Nothing abnormal was noticed in the condition of the alimentary canal. The pancreas was somewhat bulky, but not perceptibly diseased.

"The spleen was rather a small one, very firm, and of a dark plum-color on section.

"The kidneys were not enlarged, perhaps somewhat contracted; their surfaces were lobulated, and the section seemed to the naked eye to indicate cirrhosis.

"Portions of the spleen, liver, and kidneys were submitted to Dr. R. M. Bertot for microscopical examination.

"The question as to the agency of the attack of yellow fever in inducing the pathological changes above recorded is one upon which those more accustomed to the study of purely medical disorders may be able to pronounce a ready judgment; to my own mind, the history the patient was able to give me seemed too vague and incomplete to permit me to do so.

"The chain of morbid conditions leading to death in this case seemed to be as follows: the dilated and fatty heart was of inadequate power to drive the blood

against the disadvantage of imperfect aeration in the emphysematous lung; upon the occurrence of congestion of the lung from a casual chilling of the cutaneous surface, the sluggish circulation aggravated it, and gave rise to dropical effusion into the right pleural cavity, this being the side on which, from the position of his bed, he habitually lay; this condition mechanically hampered the action of the lung, and further embarrassed the weak heart, promoting the occurrence of slight ascites and anasarca; all these circumstances, with the imperfectly performed functions of the liver and kidneys, constituting a total of depression under which the muscular tissues of the heart failed altogether."

Dr. R. M. BERTOLET had made an examination of a small section of the heart, and found in a marked degree the fatty degeneration of its muscular structure. The cirrhosis of the liver and kidney had not yet reached the latter stages, but was present, as evidenced by a hypertrophy of the connective tissue about the blood-vessels, the Malpighian capsules, and the membrane of the tubules.

The PRESIDENT said the extent to which the liver and even the kidneys are implicated in yellow fever makes the condition of these organs, in cases where recovery has taken place, an interesting one. He thought that the characters of the disease were such that they need not lead necessarily to cirrhosis of these organs; while the frequent existence of emphysema of the lungs, fatty degeneration of the heart, and cirrhosis of the kidneys in cases where no yellow fever is previously present makes the question a very obscure one. He asked Dr. Bertolet whether he was aware of any facts bearing on the question of the liability of the kidneys and liver to organic disease subsequent to recovery from yellow fever.

Dr. BERTOLET replied that he had never had the opportunity of making a post-mortem examination in a case of yellow fever, and, although much had been written upon the subject, he felt that the pathology of the disease was still ill determined. He thought the condition of the liver and kidneys ordinarily met with in yellow fever by no means necessitated, and it was doubtful if they even favored, the development of cirrhosis in these organs. Fatty infiltration of a glandular tissue did not necessarily imply its destruction, nor is the atrophic liver always a resultant of a sclerotic process or so-called cirrhosis. Should we admit the occurrence of cirrhosis as a sequel of yellow fever, we must first carefully exclude all other causes of the same state, as alcohol, intermittent and other fevers, before we could be certain it was produced by yellow fever.

*Intestinal obstruction caused by huge thrombus resulting from rupture of the abdominal aorta.*

The PRESIDENT made a communication relative to a case of *intestinal obstruction* from an unusual cause. The patient was an old man, aged 82, who had long suffered with a right inguinal hernia. For some time before his last illness he complained of pain in that region. When seen first by Dr. M. Woods, his attending physician, he was complaining of considerable abdominal uneasiness, and there was obstinate constipation. This continued despite the use of large enemata and full doses of powerful cathartics. When first seen in consultation, there had been no fecal evacuation for at least ten days. There was frequent hiccough, but no actual vomiting. There had been, however, very little food taken during that time. The patient was delirious, and difficult to restrain. The pulse was frequent and small; the radial arteries very atheromatous. There was no hernia detectable in either groin. The abdomen was distended, and the walls enormously fatty, so that careful palpation was impossible. The amount of urine secreted was difficult to estimate, as it was passed in the bed. Digi-

tal examination of the rectum showed that this part of the bowel was clear. Attempts were made to give large injections by a syringe, which was found impossible. By employing hydrostatic pressure (gained by pouring water from a height of about six feet above the body through a flexible tube furnished with an olive-shaped end) about one and a half pints of water were forced into the bowel; when this escaped, it brought several pieces of hardened faeces. It was again attempted, but it was impossible to make the bowel contain as much the second time, and no result was obtained. The diagnosis, therefore, was readily arrived at, notwithstanding the complication of the case with an old hernia, that there was some increasing obstruction low down in the bowel, and probably in the sigmoid flexure of the colon.

Death ensued forty-eight hours later, from exhaustion. At no time had the obstruction been so complete as to prevent the passage of some flatus.

At the post-mortem examination the right inguinal canal was found much dilated, but containing no hernia. The cause of obstruction was sought by following the intestines downwards from the stomach. There was no trouble in the course of the small intestine, which was, however, very unequally distended, some parts being very full, others almost empty, small, and compressed-looking. On reaching the descending colon, it was found to be strongly adherent to and much compressed by a large mass which occupied the left lumbar region. This mass was about nine inches long, four and a half inches wide, and three inches thick. On incision, it was found to be an enormous clot of blood, evidently of some duration, being blackish, firm, and infiltrating the fatty and cellular tissues of the part. The aorta was imbedded in this clot, and on discovering and laying open this vessel its walls were found in a state of such intense atheromatous degeneration that they had given way, and several ruptures had occurred in the inner and middle coats of the vessel. The huge clot above described was, therefore, in part a dissecting aneurism, and in part depended on the escape of blood through the adventitia infiltrating the surrounding cellular tissue. No distinct aneurismal sac could be detected. The obstruction of the intestine was entirely due to the pressure of this mass, and was most marked low down in the sigmoid flexure of the colon, thus agreeing closely with the seat as determined by previous examination.

## REVIEWS AND BOOK NOTICES.

A PRACTICAL TREATISE ON DISEASES OF THE EYE. By HAYNES WALTON, F.R.C.S., Surgeon to St. Mary's Hospital, Surgeon-in-Charge of the Ophthalmic Department of the same, Lecturer on Ophthalmology, etc., etc. Third Edition, Re-written and Enlarged. In one large octavo vol., 1188 pages.

In commencing for critical review a book just entering upon its third edition, re-written and enlarged, which had been in its former editions "most favorably reviewed by some of the highest authorities in Great Britain, including a most extended, elaborate, and valuable one by Dr. Mackenzie, of Glasgow," one does so anticipating the pleasant duty of little else but favorable comment on its merits. At the very threshold, however, these anticipations are marred. In the otherwise fine plate representing a horizontal section of the eyeball (spoken of as vertical under the plate), the iris is represented as hanging free between the anterior and posterior chambers. It is now so well known that the iris is in contact with, and finds support for its pupillary margin on, the anterior capsule of the lens, that there seems no excuse for propagating an error like this by

pictorial representation. We are not told whether the plate is from an original drawing. We infer not, although no mention is made of its source, from the fact that the author distinctly states on page 809 that the "iris is in contact with the lens in the natural state."

After the table of contents, etc., we are greeted with an anatomical introduction of twelve pages, too short for the student of the anatomy of the eye, and not sufficiently minute to claim the attention of the ophthalmologist. The first four chapters are devoted to ophthalmic instruments, anæsthetics, eye-douches, and eye-shades. These general topics, which, very appropriately, begin the work, could as well have been placed in one chapter. In perusing them, we were pleased and instructed by the many practical suggestions and the terse and vigorous manner of expressing them.

The succeeding chapters from V. to XI. inclusive are respectively devoted to entozoa, diseases of the orbit, of the frontal sinus, tumors, protrusion of the eyeball, erectile and vascular tumors in association with the eye, and aneurism in connection with the eye. These chapters are exceptionally valuable, both because of the concise manner in which the author has stated his wide experience in the form of differential diagnosis, and the large number of illustrative cases he has culled from his practice. For the sake of the student, however, one cannot but think it had been better to have reserved these chapters, devoted to comparatively rare and obscure affections, until the less serious and far more frequently occurring diseases of the conjunctiva, cornea, iris, etc., had been treated.

In Chapter VI., p. 43, the author states that "*orbital cellulitis is one of the three varieties of erysipelas*, the others being the cutaneous and celluloo-cutaneous." The italics are his own. He would probably have some difficulty in finding support for such statements, except in cases where the cellulitis of the orbit resulted from an extension of erysipelatous inflammation from the face or elsewhere to the orbital contents.

Chapter XII. has the somewhat euphonious title of "*Geometrical Optics*." We cannot but regret that our author had not justified the use of this caption by a more thorough and complete treatment of optics as applied in ophthalmology.

Chapter XIII. is on the construction of spectacles.

Chapter XIV., on the ophthalmoscope. Decided preference is expressed for the ophthalmoscope of Coccius, while the far more excellent and convenient instruments of Loring and Knapp, of this country, are not even mentioned. Such a glaring omission is difficult to account for, except on the principle that no good thing can come out of Nazareth.

On p. 305, while treating of the normal aspect of the retina and optic disk, we find the statement that "little is to be seen of the *macula lutea* in the erect image," and the careful descriptions of Helmholz, Coccius, and Liebreich are stigmatized as "*incongruous*." Most observers would feel themselves at great loss were they not able to employ the magnified upright image in the study of pathological changes in and around the macula.

Chapter XVI. is devoted to the discussion of the paralytic affections of the eye, and is one of the most valuable chapters in the book. We regret that the space allotted us will not permit more extended notice of this satisfactory chapter, treating, as it does, of one of the most perplexing subjects to the oculist. Our author's experience corroborates that of most observers as to syphilis being the "*commonest cause*" of these ocular paralyses.

Chapter XVII. is upon ptosis, or falling of the upper lid. Why it should have been arbitrarily severed from its place among paralytic affections is not obvious. All operators will not agree with him as to the efficacy of

the removal of an ellipse of integument from the upper lid in overcoming the defect.

Chapter XVIII. is devoted to the consideration of the somewhat difficult subject of strabismus, which is rendered doubly confusing. After the careful study of paralytic affections of the muscles in the preceding chapter, one is surprised at being once more confronted by them under the head of strabismus. Our author has, we think, injudiciously adopted the old habit of classifying deviations of the visual axes from paralysis of antagonizing muscles with strabismus. Formerly all deviations from whatever cause were included under this term; but since the researches of Donders and Von Graefe it has come to be limited to that group of cases characterized *invariably* by the fixing of one eye upon the observed object, while the other deviates from its normal direction; the degree of movement in each being equal and normal, while all deviations depending upon paralysis or insufficiency from any cause, or mechanical obstruction to the movements of the eyeball, have been excluded and properly classified under their respective heads. It is to be regretted that in the work before us this course was not adopted. There is a wide difference between the paralytic deviations of the eyeball and true strabismus, as regards their etiology, symptoms, and treatment. Paralysis of the ocular muscles is usually but a symptom of some central or intra-cranial lesion of which it may be but a remaining evidence; while in strabismus we have to do with the eye alone. The treatment of ocular paralysis under this head has led our author into not a little confusion and conflict with accepted views of the ophthalmologist,—e.g., in speaking of the period at which the squint begins, he asserts that "from early infancy eyes may lose their parallelism and turn inwards." On p. 370 he says, "I am myself quite satisfied that squint has existed in several children who were brought to me within the month, and therefore it is not unreasonable to suppose that the statements of the mothers to the effect that the squints were observed a few days after birth were correct." The observations of Donders, verified by those of numerous subsequent observers, place the usual commencement of squint at about the fifth year, or at the time children begin the continued use of their eyes for near work. The writer has seen a number of cases of squint occurring between the third and fifth years, but never earlier than the third year. Numerous examples of deviation have fallen under his notice, occurring at a more tender age, but they have, without exception, belonged outside the category of true strabismus; depending either upon some disturbance of innervation or opacities in the refracting media.

In the etiology of strabismus convergens, our author has strayed very widely from the generally accepted views, and it is here we find the key to the confusion characterizing his chapter on strabismus. He denies that strabismus is but a symptom of hypermetropia, as put forth by Donders, taking exception entirely to the validity of his reasoning. It would lead us too far to enter into the discussion of this question with the space allotted us. It is sufficient evidence, however, of the fallacy of his position that the views of Donders have been subjected to the most careful scrutiny, and his observations everywhere confirmed by other observers. It is the very rare exception to find strabismus convergens disassociated with hypermetropia.

The following is a fair example of our author's reasoning: "In vain have I been looking for squint with hypermetropia only,—that form of faulty refraction with good power of accommodation, in which the application of lenses will enable the squinter to see minute and distant bodies. I find, as a rule, that where hypermetropia is present with squint, loss of acuteness of vision is

more frequently associated with it than not. I am, therefore, disposed to attribute the deformity more to the impairment of sight than to the hypermetropia. . . . Where, in periodic squint with hypermetropia, some loss of acuteness of vision occurs, a convex lens enables the eye to right itself, I consider that such a result is as much due to the increase of the visual angle and enlargement of the object as to the hypermetropia being neutralized."

In the treatment of strabismus by operation our author, rightly, we think, prefers to incise the conjunctiva and sub-conjunctival tissue vertically over the attachment of the muscle, and securing the tendon over a blunt hook (he prefers a curved one without a bulbous extremity), and then severing its attachment close to the scleroteca. He strongly advises the use of the conjunctival suture, as being safer and reducing to a minimum the traces of the operation. In this country operators usually omit the suture, in order to modify the effect of the operation subsequently should the muscle have attached itself too far back. The author distinctly declares, in two places in this chapter, that the degree of deviation is a matter of no importance; that, however slight or great, the muscle must be entirely divided. It is true that nothing less than its perfect division and re-attachment at a point farther back on the globe will meet the requirements of the case, but it is equally true that the extent of the retraction of the muscle is largely under control by the amount of laceration in the sub-conjunctival tissue and capsule of Tenon, so that it is obviously of importance to know whether there is a deviation of but 1''' or 4''' to correct.

The amblyopia of the deviated eye is a well-known fact. Every one conversant practically with strabismus will have seen repeatedly the eye, before the operation practically blind, within a short time recover normal sharpness. Mr. Walton declares this improvement to be immediate.

In our own experience, while the improvement has been manifest in twenty-four or forty-eight hours, it has been only after the lapse of a few weeks or, in some cases, months before the normal sharpness was regained. As might have been anticipated from his views upon the causation of strabismus convergens, he makes but small account of the correction of the hypermetropia, simply stating that any existing optical defect should be corrected, but follows immediately with the remark that relapses are due to disuse of the eye. He has had but four cases of relapse in his private practice, while he does not remember any in his "public operations." "There can be little doubt," he says, "that in many of the supposed cases of recurrence the operation has never been completely done."

In diverging strabismus he again takes exception to the explanations of Donders. On page 400 it is stated, "I do not believe that the form of the myopic eye interferes with its movements." Believing the changes are too small to impede seriously its movements in the orbit or to change the relative action of the muscles, he remarks, page 401, "I admit, in a general acceptation, the statement about the insufficiency of the rectus muscles, but it must be remembered that the word *insufficiency* is but another term for *paralysis* of these muscles, unless congenital arrest of development be admitted." It is also claimed that, as in strabismus convergens the deviation is due to other defects than to the ever-present hypermetropia, so here, it is said, the divergence is due to some other disturbance of vision in one or both eyes.

He has "always been able to trace it" to some other cause, but admits that myopia is usually associated with these states. "It is," he says, "a fact difficult to explain that the circumstances which at one time of life determine an internal squint shall at another be fol-

lowed by the outward deviation of the eyeball. . . . A child seldom acquires an outward squint, an adult seldom acquires an internal one." In the treatment of diverging strabismus his experience is again at variance with that of most others, as he obtains "better results" here than in converging strabismus. We regret that limited space compels these hasty allusions, rather than a more extended discussion of the subject.

Chapters XIX., XX., and XXI., devoted to mechanical injuries to the eye and its appendages, are valuable, and represent the book and its author in the best light, for it is in these purely surgical aspects of the subject alone that his book will be regarded as valuable or a safe guide to the student. Of the succeeding six chapters there is but little to say, save in commendation. We thought more stress should have been laid upon sympathetic inflammation as the sequel to foreign bodies within the eye, and that for some reasons it had been better to defer the subject of artificial pupil, treated at great length in Chapter XXVI., until iritis had been studied, it being the most frequent cause of those conditions making an artificial pupil necessary.

Chapter XXVIII. is devoted to the anomalies of refraction and accommodation, which he has treated in sixty-nine pages. He has given a fair outline of this important subject; but from it alone, no one, even from the most careful study, would be prepared to correct these anomalies.

In the extraction of cataract, our author prefers the flap operation. In alluding to the peripheric linear operation of Graefe, he says it has many admirers, especially among his *personal friends*. He claims, contrary to the opinion of most operators, that it is less difficult of execution than the flap extraction, and, with a characteristic *Britonism*, insinuates the belief that its popularity is mainly due to this fact. He very justly condemns the now antiquated and dangerous operation of reclinatio or depression of cataract. The remaining portion of the book is taken up in the consideration of the more common defects, as diseases of the external and internal tunics of the eyeball, diseases of the optic nerve, etc. There are many points here we would desire to notice, but the limits allotted us in this review have already been exceeded. While there is so much that is good in the book, we cannot overlook its defects. In so far as it is a statement of the author's wide experience in the treatment of the purely surgical parts of his subject, the book is a valuable one; but we predict for other parts of the work a cool reception from ophthalmologists in this country. For the student it cannot compare favorably with the work of Soelberg Wells, already in the market.

S. D. RISLEY.

## SELECTIONS.

**EARLY HISTORY OF THE INJECTION OF MEDICINES INTO THE BLOOD.**—Immediately after the discovery of the circulation of the blood by Harvey, Wren, who was then at Oxford, injected certain fluids into the veins of animals. In a letter to Sir William Petty, he states that he made the first experiment in 1656. He injected wine and ale into the vein of a dog until it became drunk, but soon after it voided them by urine. He also tried the effects of opium, scammony, and other drugs. The opium, says Oldenbrugh (*Phil. Trans.*, 1665), stupefied but did not kill the dog. The crocus metallorum injected into the vein of another dog caused vomiting and death.

In 1667, Professor Fracassati, of Pisa, injected diluted aqua fortis into the crural vein; the animal died presently,—all the blood coagulated; spirits of vitriol acted

similarly; oil of tartar, when injected, caused much suffering and great distention of the body. When opened, the blood was found fluid.

The French laid claim to the discovery in their "Medical Journals" in 1667, for a reason that one Robert de Gabets discoursed of it ten years before.

The credit of being the first to inject medicines into the human system seems to be due to Dr. Fabritius. The paper is entitled "Some new Experiments of Injection medicated Liquors into veine, together with (an account of) considerable Cures performed thereby. Communicated by Dr. Fabritius, of Dantick. (Translated by Mr. Oldenbrugh from the original Latin)."

"As we had a great desire to try what would be the effect of the surgical experiments of injection liquors into veins, three fit subjects presenting themselves in our hospital, we thought good to make the trial upon them. But seeing little ground to hope for a manifest operation from merely altering medicines, we thought the experiment would be more convenient and conspicuous from laxatives; which made us inject by a syphon about two drams of such a kind of physic into the median vein of the right arm. The patients were these: One was a lusty robust soldier dangerously infected with the venereal disease, and suffering grievous exostoses of the bones in his arms. He, when the purgative liquor was infused into him, complained of great pains in his elbows, and the little valves of his arm swelled so visibly that it was necessary by a gentle compression of one's fingers to stroke up that swelling towards the patient's shoulders. About four hours after it began to work, not very troublesome; and so it did the next day, insomuch that the man had five good stools after it. Without any other remedies, those protuberances were gone, nor are there any traces left of the above-mentioned disease.

"The two other trials were made upon the other sex. A married woman of 35, and a servant maid of 20 years of age, had been both of them from their birth very grievously afflicted with epileptic fits, so that there were little hopes left to cure them. They both underwent this operation, and there was injected into their veins a laxative rosin, dissolved in an anti-epileptic spirit. The first of these had gentle stools some hours after the injection, the next day the fits recurred now and then, but much milder, and are since altogether vanished. As for the other—viz., the maid, she went the same day to stool four times, and several times the next; but by going into the air, taking cold, and being careless in her food, she died.

"It is remarkable that all three vomited soon after the injection, and that excessively and frequently."—*Melbourne Medical Record.*

### GLEANINGS FROM OUR EXCHANGES.

**ANTISEPTIC OSTEOTOMY** (*Edinburgh Medical Journal*, March, 1875).—Two years ago Professor Richard Volkmann, of Halle, introduced into his clinique the employment of the antiseptic method, and he now bears witness to the remarkable influence it has had upon the results of his operations, particularly in cases of osteotomy which are somewhat similar to artificially produced compound fractures.

He says, "The justification of operations like these undoubtedly depends entirely on the possibility of guaranteeing a successful termination. We believe that we are not assuming too much in saying that we have by degrees attained sufficient practice and experience in the antiseptic treatment of wounds, to be really able to promise such a result with certainty."

During 1874 he performed osteotomy thirteen times;

of these cases ten recovered without any suppuration at all, and the others with only the most trifling possible amount. In all the local reaction was absolutely *nil*, and in no case did the slightest redness or swelling of the soft parts take place, to say nothing of any phlegmonous inflammation.

Since the introduction of the antiseptic method, no single patient suffering from a compound fracture, in which conservative treatment was attempted, has died. These were thirty-one in number, and among them as many as nineteen compound fractures of the leg, in several instances much comminuted, and often complicated with most severe bruising and laceration of joints. Although he was working in an old and over-crowded hospital, offering the most unfavorable hygienic conditions, yet no case of pyæmia had occurred for a year and a half, although during that period about sixty major amputations had taken place.

This communication of Professor Volkmann's is of the greatest practical and scientific importance, and should be extensively noticed. The *Lancet* remarks editorially, after giving an abstract of the paper, "Such results as these deserve the widest publicity,—for criticism if they can be challenged in any way, for imitation if they cannot."

**PULSATING TUMOR OF THE LEFT ORBIT, FOLLOWING FRACTURE OF THE BASE OF THE SKULL, AND CURED BY LIGATION OF THE LEFT COMMON CAROTID ARTERY** (*The Lancet*, April 3, 1875).—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Walter Rivington read a lengthy paper, in which he discussed the questions of diagnosis and treatment of intra-orbital aneurism. He related the following case:

W. C., aged twenty-four, was admitted into the London Hospital in July, 1873, with a fracture of the skull. Six weeks later the patient heard a noise in his head like wind blowing, the eye gradually became prominent, pulsation of the eyeball was seen for a day or two, followed by the formation of a pulsating and thrilling tumor between the eye and the margin of the orbit. There was a bruit continuous with reinforcements, and the "bruit de piaulement" could be heard at intervals. At the time of the commencement of the aneurismal symptoms, digital compression was carried out very thoroughly, without making any impression on the disease. Ligation of the carotid was discussed, but negatived at a consultation. A further trial of compression, digital, instrumental, and direct, having been made without effect, combined with veratrum, and the affection at the end of a year being decidedly aggravated, threatening extinction of vision and preventing work, an injection of five drops of a neutral watery solution of the perchloride was made; but this proving to be insufficient in quantity to cause sufficient coagulation in the dilated ophthalmic vein, and a second injection being impracticable on account of subsequent swelling, the carotid artery was tied by Mr. Rivington. This effected a cure of the disease, a slight bruit only remaining; but superficial ulceration of the cornea occurred a few days after ligation, and resulted in opacity.

The conclusions as to treatment of such cases were:—  
1. Belladonna, digitalis, veratrum, and ice were worthy of a trial. 2. Digital compression should always be essayed. 3. Instrumental compression was more difficult, and more likely to injure important nerves. 4. Galvano-puncture was not well suited for application to a thin-walled vein. 5. Coagulating fluids were adapted only for cases of arterio-venous aneurisms. 6. Ligation of the carotid was the remedy most generally applicable, but should not be hastily employed.

**SUCCESSFUL SERIES OF OPERATIONS FOR STONE IN THE ADULT** (*The Lancet*, April 3, 1875).—Sir Henry

Thompson, after briefly alluding to a series of stone-operations performed by Martineau of Norwich, and said to be the most successful on record, gives the following *résumé* of the results of his last one hundred operations:

"My present one hundred cases commenced shortly before Christmas, 1872, and includes every one operated on by myself up to the present time; it consequently represents my entire work of the last two years and a quarter. It may be worth while naming, in order to show that I have not carefully selected the term, that it commences just before the death of the late Emperor Napoleon, which is the third case of the series.

"Ninety-six were adult males, four were adult females.

"Of the ninety-six males, eighty-seven were operated on by lithotomy and nine by lateral lithotomy.

"The mean age of the eighty-seven operated on by lithotomy is 63½ years, the oldest being 83, the youngest 22, but only four were below 50 years.

"The mean age of the nine operated on by lithotomy was 63½ years also, their respective ages being 36, 59, 59, 61, 63, 70, 75, and 79.\*

"Among the eighty-seven operated on by lithotomy were four deaths: the ages were 61, 65, 66, and 81.

"Among the nine operated on by lithotomy were two deaths,—viz., at 61 and 63.

"Thus it will be seen that there was a total of six deaths in ninety-six patients, with a mean age of 63½, by the two operations.

"While alluding to what has been termed a run of successful cases in practice, I may observe that in this one hundred of mine there was one more remarkable than I have ever before witnessed or heard of. I had a succession of fifty-one elderly adult cases without a single death. They occurred between July, 1873, and June, 1874. These fifty-one cases (seven more than Martineau's entire adult series of all ages) had a mean age of 64 years.

"I wish to present this brief *résumé* as a fair example of what careful selection of the two operations is now capable of accomplishing for calculous patients. It is a little better than my entire average, including all my earliest experiences. What that is I hope soon to give to the profession in a complete form. I hope then to have the opportunity of recording all that I have been able to glean from an unbroken series of five hundred cases in the adult male, besides the cases of women and children."

**TESTING FOR QUININE IN URINE.**—The urine to be tested is rendered alkaline with ammonia, then shaken with ether, which dissolves out the quinine; the ether is poured off, a drop of hydrochloric acid is added and the ether evaporated. The minute residue is taken up in chlorine-water, and on adding ammonia the characteristic green color appears.

## MISCELLANY.

**FECUNDITY OF THE SHARK.**—The *Union Médicale* of February 20 contained an account of a female of this species, caught by M. Lesseps, which on dissection was found to contain twelve living young ones. This viviparous character of the shark is confirmed by Dr. Moinet, an ex-naval surgeon, in a letter published in the *Union Médicale* of April 29. In it he relates that, when off the Antilles, an enormous blue shark was taken, which when

opened was found to contain seventy very lively young ones, which, when thrown into a tub of sea-water, swam about with great vivacity. In order to avoid any chance of being devoured at a later period by these interesting orphans, Dr. Moinet thought it advisable to cut short their career in a bath of boiling water. The small sharks varied from about nine to ten inches.—*London Medical Record.*

**WEST VIRGINIA STATE MEDICAL SOCIETY.**—The West Virginia Medical Society at their meeting at Point Pleasant, June 2, 1875, delegated Dr. W. H. Vankirk to represent their Society at the meeting of the Pennsylvania State Medical Society. The following officers were elected: *President*, Dr. A. R. Parbee, Point Pleasant; *First Vice-President*, Dr. J. O. Wall, Huntingdon; *Second Vice-President*, Dr. S. G. Shaw, Point Pleasant; *Third Vice-President*, Dr. B. F. Hoyt, Ravenswood; *Secretary*, Dr. W. M. Dent, Newburg; *Treasurer*, Dr. J. C. Hupp, Wheeling; *Censors*, Drs. Hildreth, Charter, Carpenter, Pipes, Hall, L. F. Campbell, and Bond.

The next meeting is to be held at Wheeling on the first Wednesday of June, 1876.

**UNDER the title of "Two Thousand Years After; or, Talks in a Graveyard,"** Dr. James E. Garretson has essayed to write a continuation of Plato's world-famous discourse on the immortality of the soul, the "Phædo." The position is taken that soul is not a necessity of the human organism, and that a man may be born, may live, and may die, without being possessed of an immortal principle. Claxton, Remsen & Haffelfinger are the publishers.

**DEAD HORSE.**—The horse-shambles of Paris supplied the public during the third quarter of 1874 with nearly 630,000 pounds of meat, the result of the slaughter of 1555 horses, mules, and asses.

**THE blue, roughened poison-bottle,** so much discussed some years since in this city, has at last reached the hub of the universe. See *Boston Medical and Surgical Journal*, June 10.

It is reported that out of six thousand men sent out by the Dutch Government against the Achinese in Sumatra, no less than one thousand have died since December last from cholera and other diseases.

## OFFICIAL LIST

**OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM JUNE 8, 1875, TO JUNE 14, 1875, INCLUSIVE.**

**BACHE, DALLAS, SURGEON.**—Granted leave of absence for two months. S. O. 114, Military Division of the Atlantic, June 7, 1875.

**KNICKERBOCKER, B., ASSISTANT-SURGEON.**—Assigned to temporary duty at Fort Canby, W. T., relieving Assistant-Surgeon Brooke, and upon assignment of another medical officer to duty there, to rejoin his proper station, Fort Vancouver, W. T. S. O. 69, Department of the Columbia, May 27, 1875.

**DELANY, ALFRED, ASSISTANT-SURGEON.**—Granted leave of absence for three months on surgeon's certificate of disability. S. O. 116, A. G. O., June 11, 1875.

**STEINMETZ, W. R., ASSISTANT-SURGEON.**—Assigned to duty at Cheyenne and Arapahoe Agency, Indian Territory. S. O. 91, Department of the Missouri, June 8, 1875.

**MUNN, C. E., ASSISTANT-SURGEON.**—Assigned to duty at Camp Robinson, Nebraska. S. O. 67, Department of the Platte, June 4, 1875.

\* Only eight given.